

**REMARKS****Status Of Claims**

Claims 1-7 and 9-57 will be pending upon entry of this Amendment. Claim 8 is canceled herein. The independent claims of this application are 1, 16, 18, 21, 23, 29, 35, 36, 38 and 43. Claims 18 and 43 are currently allowed. Claims 21 and 38 recite allowable subject matter (*see* Office Action, on page 16). Applicants add new claims 44-57 herein. No new matter is added. Entry and consideration of this amendment is respectfully requested.

**Allowed And Allowable Subject Matter**

Applicants acknowledge the Examiner's allowance of claims 18 and 43. Claims 19, 20 and 22 are amended herein to depend directly or indirectly upon allowed claim 18. Therefore, Applicants respectfully request the allowance of claims 19, 20, and 22.

In accordance with the Examiner's instructions, claim 38 has been amended to independent form including all of the limitations of the base claim and any intervening claims. Allowance of claim 38 is respectfully requested.

In accordance with the Examiner's instructions, claim 21 has been amended to independent form including all of the limitations of the base claim and any intervening claims. Allowance of claim 21 is respectfully requested.

**Priority**

Applicants acknowledge and appreciate the Examiner's efforts to secure a copy of the certified copy of JP-1 1/359391 from the International Bureau.

**Response To Claim Objections**

Claims 15, 22, 32-34, and 42 stand objected to under 37 C.F.R. § 1.75(c) as being improperly multiply dependent.

Claim 15 is amended herein to depend only from claim 1.

Claim 22 is amended herein to depend only from claim 18.

Claim 32 is amended herein to depend only from claim 29.

Claim 35 has been amended to only depend from claim 35.

In view of the above, claims 15, 22, 32-34, and 42 are proper dependent claims and Applicants respectfully request the withdrawal of the objections to these claims under 37 C.F.R. § 1.75(c).

Claims 5, 13, 21, and 41 stand objected to under 37 C.F.R. § 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicants respectfully traverse.

Claim 5 includes recitations regarding “polymerization catalyst (3’)” that do not appear to be present in the claims from which it depends (i.e., claim 4, claim 1).

Claims 13 and 41 have been amended herein to recite “a coating for cans, comprising:”. This recitation does not appear in the respective claims from which claims 13 and 41 depend.

Claim 21 has been amended to independent form for allowance as recommended by the Examiner. Therefore, the rejection of claim 21 under 37 C.F.R. § 1.75(c) is moot.

Claims 6 and 8 stand objected to over alleged informalities in terminology.

Claim 6 is amended herein to recite “organosilicon compound” in accordance with the Examiner’s suggestion (*see* Office Action, at page 3, para 5).

Claim 8 is canceled herein.

### **Response To Objections To The Specification**

The specification stands objected to over alleged informalities regarding terminology.

As set forth above, the specification has been amended to recite the Examiner's suggested term "organosilicon compound". Additionally, the specification has been amended to recite "silicon" instead of "silicone" in the instances set forth above.

### **Response To Claim Rejections Under 35 U.S.C. § 112**

Claim 8 stands rejected under 35 U.S.C. § 112, second paragraph, for alleged insufficient antecedent basis. Claim 8 is canceled. Therefore, this amendment is moot.

Claims 14 and 26 stand rejected under 35 U.S.C. § 112, first paragraph. It is alleged that the claim 14 recitation "constructing an acrylic resin *in* an epoxy compound." (*emphasis Examiner's, see Office Action, on page 5, para 1*) requires clarification.

Claim 14 is amended herein to recite "reacting with ionic species in a curable resin composition according to claim 1 under a condition of the absence of a volatile solvent by polymerizing monomers constructing an acrylic resin (i-2) with an epoxy compound (i-1)".

It is alleged that the claim 26 recitation "wherein said polymeric compound (iii-2) is an acrylic resin polymerized *in* said monomer (iii-1)." (*emphasis Examiner's, see Office Action on page 5, para 2*). Claim 26 is amended herein to recite "is an acrylic resin comprising said monomer".

Claim 28 stand rejected under 35 U.S.C. § 112 as allegedly lacking clarity. Claim 28 is amended as set for above to recite "a curable resin located between said first layer and said second layer".

In view of the above, Applicants respectfully request that all rejections under 35 U.S.C. § 112 be withdrawn.

**Response To Claim Rejections Under 35 U.S.C. § 102**

Claims 23, 26, and 29-30 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Murai et al. (US Pat. No. 6,437,090; hereinafter “Murai ‘090”).

Claim 23 recites “laminated printed circuit board”. Applicant asserts that it does not appear that Murai ‘090 discloses Applicants’ claimed “laminated printed circuit board”.

Claim 26 depends from claim 23.

Thus, Applicants respectfully assert that Murai ‘090 does not appear to disclose all of the elements of Applicants claimed invention. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 26 and 23 under 35 U.S.C. § 102(e) over Murai ‘090.

Claim 29 recites “a thermally-activating ionic polymerization catalyst which can dissolve by heating and crystallize by cooling”.

Applicants respectfully traverse. Applicants assert that the citation of Murai ‘090, col. 4/66-5/58 relied upon in the Office Action does not disclose all of Applicants’ claimed limitations. Applicants, further assert that the recitation “a thermally-activating ionic polymerization catalyst” appears not to be disclosed at the citation Murai ‘090, col. 4/66-5/58, referenced in the office action.

Claim 30 is dependent upon claim 29.

In view of the above, Applicants request that the rejection of claims 29 and 30 under 35 U.S.C. § 102(e) over Murai ‘090 be withdrawn.

**Response To Claim Rejections Under 35 U.S.C. §§ 102,103**

Claims 24 and 28 stand rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Murai '090.

Claim 24 recites "wherein said monomer (iii-1) has a viscosity of not more than 1,000 cP/25°C". Applicant agrees with the Examiner that "Murai et al. do not explicitly disclose that monomer (iii-1) has a viscosity of not more than 1,000 cP/25°C". (Office Action, page 8, para 16).

Applicant respectfully traverses the rejection of claim 24 under 35 U.S.C. § 102, or alternatively, under 35 U.S.C. § 103.

Claim 24's recitations are not limited to those above. Claim 24 further recites "viscosity of not more than 1,000 cP/25°C and 1-2 epoxy groups per molecule". As discussed *supra*, Murai '090 does not disclose the claim 24 recitation of viscosity. Additionally, Murai '090 apparently does not disclose any monomer (iii-1) viscosity range in conjunction with Applicants claimed recitation of "and 1-2 epoxy groups per molecule". Applicants respectfully assert that given the breadth of scope of different species encompassed by claim 24 and in view of the recitations set forth *supra* that Murai '090 does not inherently disclose Applicants claimed invention and that Murai '090 does not teach or suggest Applicants' claimed invention.

In view of the above, Murai '090 does not disclose all of the claimed elements of Applicants' claimed invention expressly or inherently. Thus no *prima facie* case of anticipation exists under 35 U.S.C. § 102. Further, Murai '090 does not teach or suggest all claimed elements of Applicants' claimed invention. Thus, no *prima facie* case of obviousness exists.

Applicants respectfully request that the rejection of claim 24 under 35 U.S.C. § 102, or alternatively under 35 U.S.C. § 103, over Murai '090 be withdrawn.

Claim 28 recites “at least a first layer and a second layer supported by said substrate, and a curable resin located between said first layer and said second layer”

Applicants respectfully traverse the Examiner’s rejection of claim 28.

Murai '090 discloses “For example, the liquid epoxy resin ... can be utilized as ... a print board, a laminate board ...”. (‘090, col. 58, lines 23-27). It does not appear that Murai '090 disclose Applicants claimed “curable resin located between said first layer and said second layer”.

Further, Applicants’ claim 28 also recites “ said resin having a composition according to claim 23”. Thus, not only does Murai '090 appear to fail to disclose Applicants’ claimed utilization of said resin, but also does not appear to disclose the claimed composition of said resin in Applicants’ claimed use.

In view of the above, Murai '090 does not disclose all of the claimed elements of Applicants’ claimed invention expressly or inherently. Thus no *prima facie* case of anticipation exists under 35 U.S.C. § 102. Further, Murai '090 does not teach or suggest all claimed elements of Applicants’ claimed invention. Thus, no *prima facie* case of obviousness exists.

Applicants respectfully request that the rejection of claim 28 under 35 U.S.C. § 102, or alternatively under 35 U.S.C. § 103, over Murai '090 be withdrawn.

**Response To Claim Rejections Under 35 USC § 103**

Claims 1-13, 16, 17, 19, 25, 35-37, 39, and 41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikushima et al. (US Pat. No. 6,015,848; hereinafter “Ikushima ‘848”) in view of Murai ‘090.

As discussed *supra*, claim 18 has been allowed. Claim 19 has been amended to depend only from claim 18. Therefore the rejection of claim 19 is now moot.

Applicants respectfully traverse the rejection of Claims 1, 35 and 36. Claims 2-7 and 9-13 depend directly or indirectly from claim 1. Claims 37 (a multiple dependent claim) and 41 depend from claim 35. Claims 37 and 39 depend from claim 36.

Claims 1, 35 and 36 have certain common recitations. These include:

... viscosity of not more than 1,000 cP at 25°C ...

and,

... said polymerization catalyst having a substituted hydrocarbon group having a carbon number of more than 10, or a nonsubstituted hydrocarbon group having a carbon number of more than 10, or a cyclic organic structure having a more than 10 carbon number hydrocarbon group.

As previously presented in Applicants Amendment Under 37 C.F.R. § 1.111, filed May 30, 2003, the catalysts of Ikushima ‘848 have short alkyl chains and do not possess the reversible property claimed by Applicants of dissolving and crystallizing in an epoxy resin. Applicants claim “a carbon number of more than 10, or a nonsubstituted hydrocarbon group having a carbon number of more than 10, or a cyclic organic structure having a more than 10 carbon number”. No such characteristics appear to be disclosed in Ikushima ‘848 as claimed by Applicants.

Murai ‘090 does not rectify the deficiencies of Ikushima ‘848. Claims 1, 35 and 36 recite “viscosity of not more than 1,000 cP at 25°C”. As discussed *supra*, Murai ‘090 does not disclose

the recitation of viscosity. Applicants respectfully assert that given the breadth of scope of different species encompassed by claims 1, 35 and 36 and in view of the recitations set forth *supra* that Murai '090 does not inherently disclose Applicants claimed invention and that Murai '090 does not teach or suggest Applicants claimed invention.

Thus, neither Ikushima '848 or Murai '090, whether considered alone or in combination teach or suggest all claimed elements of Applicants' claimed invention. Further, Ikushima '848 teaches away from Applicants' invention. In view of the above, Applicants respectfully request the withdrawal of the rejections of claims 1-7, 9-13, 35-37, 39 and 41 under 35 U.S.C. § 103 over Ikushima '848 in view of Murai '090.

Claim 16 is the independent claim from which claim 17 depends. Claim 16 recites:

16. (previously presented): A solvent-based coating composition which comprises (ii-1) an epoxy compound having at least two cycloaliphatic epoxy groups in the molecule and a number average molecular weight of not more than 2,000 ... said polymerization catalyst having a substituted hydrocarbon group having a carbon number of more than 10, or a nonsubstituted hydrocarbon group having a carbon number of more than 10, or a cyclic organic structure having a more than 10 carbon number hydrocarbon group.

As discussed *supra*, the catalysts of Ikushima '848 have short alkyl chains and do not possess the reversible property claimed by Applicants of dissolving and crystallizing in an epoxy resin. Applicants claim "a carbon number of more than 10, or a nonsubstituted hydrocarbon group having a carbon number of more than 10, or a cyclic organic structure having a more than 10 carbon number hydrocarbon group". No such characteristics appear to be disclosed in Ikushima '848 as claimed by Applicants. Further, Applicants' claim 16 recites "having at least two cycloaliphatic epoxy groups in the molecule and a number average molecular weight of not



more than 2,000”. It does not appear that Ikushima ‘848 teaches “a number average molecular weight of not more than 2,000”.

Murai ‘090 does not rectify the deficiencies of Ikushima ‘848. Murai ‘090 also does not appear to teach “a number average molecular weight of not more than 2,000”.

Thus, neither Ikushima ‘848 or Murai ‘090, whether considered alone or in combination teach or suggest all claimed elements of Applicants’ claimed invention. Also as set forth above, Ikushima ‘848 teaches away from Applicants’ invention. Thus, Applicants respectfully request the withdrawal of the rejections of claims 16 and 17 under 35 U.S.C. § 103 over Ikushima ‘848 in view of Murai ‘090.

Claim 25 is dependent from claims 23 and 24. As discussed above, claims 23 and 24 are neither anticipated nor obvious. Thus, no *prima facie* case of obviousness exists for claim 25 depending therefrom. Accordingly, Applicants respectfully request that the rejection of claim 25 under 35 U.S.C. § 103 over Ikushima ‘848 in view of Murai ‘090 be withdrawn.

### **CONCLUSION**

Based on the foregoing amendments and remarks, Applicants respectfully assert that ‘848 does not disclose all of the claimed elements of Applicants’ claimed invention. Further, Applicants respectfully assert that all pending claims are allowable. Therefore, Applicants respectfully request that that all claim rejections under 35 U.S.C. §§ 112, 102(e) and 103(a) be withdrawn. In view of the above, Applicants also respectfully request that all objections to the claims and specification be withdrawn. Applicants respectfully request reconsideration and the allowance of this application.

If any issues remain which the Examiner feels would be best resolved through a telephonic or personal interview, the Examiner is requested to contact the undersigned below.

**AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment, or credit any overpayment, to Deposit Account No. 13-4500, Order No. 1776-4067. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,  
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